

Name: _____

Date: _____

FOIL when $A \neq 1$ solution (version 3)

FOIL the expressions shown below:

1. $(5x - 3)(3x - 5)$

$$\begin{aligned} & (5)(3)x^2 + (5)(-5)x + (-3)(3)x + (-3)(-5) \\ & (15)x^2 + (-25)x + (-9)x + (15) \\ & 15x^2 - 34x + 15 \end{aligned}$$

2. $(3x - 6)(-2x + 8)$

$$\begin{aligned} & (3)(-2)x^2 + (3)(8)x + (-6)(-2)x + (-6)(8) \\ & (-6)x^2 + (24)x + (12)x + (-48) \\ & -6x^2 + 36x - 48 \end{aligned}$$

3. $(-5x + 6)(5x - 2)$

$$\begin{aligned} & (-5)(5)x^2 + (-5)(-2)x + (6)(5)x + (6)(-2) \\ & (-25)x^2 + (10)x + (30)x + (-12) \\ & -25x^2 + 40x - 12 \end{aligned}$$

4. $(-8x - 4)(-2x + 9)$

$$\begin{aligned} & (-8)(-2)x^2 + (-8)(9)x + (-4)(-2)x + (-4)(9) \\ & (16)x^2 + (-72)x + (8)x + (-36) \\ & 16x^2 - 64x - 36 \end{aligned}$$

5. $(3x - 4)(8x - 2)$

$$\begin{aligned} & (3)(8)x^2 + (3)(-2)x + (-4)(8)x + (-4)(-2) \\ & (24)x^2 + (-6)x + (-32)x + (8) \\ & 24x^2 - 38x + 8 \end{aligned}$$

FOIL the expressions shown below:

6. $(-3x + 8)(7x - 5)$

$$\begin{aligned} &(-3)(7)x^2 + (-3)(-5)x + (8)(7)x + (8)(-5) \\ &(-21)x^2 + (15)x + (56)x + (-40) \\ &-21x^2 + 71x - 40 \end{aligned}$$

7. $(-6x - 7)(2x - 4)$

$$\begin{aligned} &(-6)(2)x^2 + (-6)(-4)x + (-7)(2)x + (-7)(-4) \\ &(-12)x^2 + (24)x + (-14)x + (28) \\ &-12x^2 + 10x + 28 \end{aligned}$$

8. $(-9x + 3)(-9x + 2)$

$$\begin{aligned} &(-9)(-9)x^2 + (-9)(2)x + (3)(-9)x + (3)(2) \\ &(81)x^2 + (-18)x + (-27)x + (6) \\ &81x^2 - 45x + 6 \end{aligned}$$

9. $(6x - 2)(8x - 4)$

$$\begin{aligned} &(6)(8)x^2 + (6)(-4)x + (-2)(8)x + (-2)(-4) \\ &(48)x^2 + (-24)x + (-16)x + (8) \\ &48x^2 - 40x + 8 \end{aligned}$$

10. $(-6x - 7)(5x + 2)$

$$\begin{aligned} &(-6)(5)x^2 + (-6)(2)x + (-7)(5)x + (-7)(2) \\ &(-30)x^2 + (-12)x + (-35)x + (-14) \\ &-30x^2 - 47x - 14 \end{aligned}$$